

# **DRUGS, MEDICINAL AND BIOLOGICAL SUBSTANCES CAUSING ADVERSE EFFECTS IN THERAPEUTIC USE (E930- E949)**

- Includes: correct drug properly administered in therapeutic or prophylactic dosage, as the cause of any adverse effect including allergic or hypersensitivity reactions
- Excludes: accidental overdose of drug and wrong drug given or taken in error (E850.0-E858.9)
  - accidents in the technique of administration of drug or biological substance such as accidental puncture during injection, or contamination of drug (E870.0-E876.9)
  - administration with suicidal or homicidal intent or intent to harm, or in circumstances classifiable to E980-E989 (E950.0-E950.5, E962.0, E980.0-E980.5)
- See Alphabetic Index for more complete list of specific drugs to be classified under the fourth-digit subdivisions. The American Hospital Formulary numbers can be used to classify new drugs listed by the American Hospital Formulary Service (AHFS). See appendix C.
- E930 Antibiotics
  - Excludes: that used as eye, ear, nose, and throat [ENT], and local anti-infectives (E946.0-E946.9)
  - E930.0 Penicillins
    - Natural
    - Synthetic
    - Semisynthetic, such as:
      - ampicillin
      - cloxacillin
      - nafcillin
      - oxacillin
  - E930.1 Antifungal antibiotics
    - Amphotericin B
    - Griseofulvin
    - Hachimycin [trichomycin]
    - Nystatin
  - E930.2 Chloramphenicol group
    - Chloramphenicol
    - Thiamphenicol
  - E930.3 Erythromycin and other macrolides
    - Oleandomycin
    - Spiramycin
  - E930.4 Tetracycline group
    - Doxycycline
    - Minocycline
    - Oxytetracycline
  - E930.5 Cephalosporin group
    - Cephalexin
    - Cephaloglycin
    - Cephaloridine
    - Cephalothin
  - E930.6 Antimycobacterial antibiotics
    - Cycloserine
    - Kanamycin
    - Rifampin
    - Streptomycin

- E930.7 Antineoplastic antibiotics
  - Actinomycins, such as:
    - Cactinomycin
    - Dactinomycin
    - Bleomycin
    - Daunorubicin
    - Mitomycin
  - Excludes: other antineoplastic drugs (E933.1)
- E930.8 Other specified antibiotics
- E930.9 Unspecified antibiotic
- E931 Other anti-infectives
  - Excludes: ENT, and local anti-infectives (E946.0-E946.9)
  - E931.0 Sulfonamides
    - Sulfadiazine
    - Sulfafurazole
    - Sulfamethoxazole
  - E931.1 Arsenical anti-infectives
  - E931.2 Heavy metal anti-infectives
    - Compounds of:
      - antimony
      - bismuth
      - lead
      - mercury
    - Excludes: mercurial diuretics (E944.0)
  - E931.3 Quinoline and hydroxyquinoline derivatives
    - Chiniofon
    - Diiodohydroxyquin
    - Excludes: antimalarial drugs (E931.4)
  - E931.4 Antimalarials and drugs acting on other blood protozoa
    - Chloroquine phosphate
    - Cycloguanil
    - Primaquine
    - Proguanil [chloroguanide]
    - Pyrimethamine
    - Quinine (sulphate)
  - E931.5 Other antiprotozoal drugs
    - Emetine
  - E931.6 Anthelmintics
    - Hexylresorcinol
    - Male fern oleoresin
    - Piperazine
    - Thiabendazole
  - E931.7 Antiviral drugs
    - Methisazone
    - Excludes: amantadine (E936.4)
      - cytarabine (E933.1)
      - idoxuridine (E946.5)
  - E931.8 Other antimycobacterial drugs
    - Ethambutol
    - Ethionamide
    - Isoniazid
    - Para-aminosalicylic acid derivatives

- Sulfones
- E931.9 Other and unspecified anti-infectives
  - Flucytosine
  - Nitrofurantoin derivatives
- E932 Hormones and synthetic substitutes
  - E932.0 Adrenal cortical steroids
    - Cortisone derivatives
    - Desoxycorticosterone derivatives
    - Fluorinated corticosteroids
  - E932.1 Androgens and anabolic congeners
    - Nandrolone phenpropionate
    - Oxymetholone
    - Testosterone and preparations
  - E932.2 Ovarian hormones and synthetic substitutes
    - Contraceptives, oral
    - Estrogens
    - Estrogens and progestogens combined
    - Progestogens
  - E932.3 Insulins and antidiabetic agents
    - Acetohexamide
    - Biguanide derivatives, oral
    - Chlorpropamide
    - Glucagon
    - Insulin
    - Phenformin
    - Sulfonylurea derivatives, oral
    - Tolbutamide
    - Excludes: adverse effect of insulin administered for shock therapy (E879.3)
  - E932.4 Anterior pituitary hormones
    - Corticotropin
    - Gonadotropin
    - Somatotropin [growth hormone]
  - E932.5 Posterior pituitary hormones
    - Vasopressin
    - Excludes: oxytocic agents (E945.0)
  - E932.6 Parathyroid and parathyroid derivatives
  - E932.7 Thyroid and thyroid derivatives
    - Dextrothyroxine
    - Levothyroxine sodium
    - Liothyronine
    - Thyroglobulin
  - E932.8 Antithyroid agents
    - Iodides
    - Thiouracil
    - Thiourea
  - E932.9 Other and unspecified hormones and synthetic substitutes
- E933 Primarily systemic agents
  - E933.0 Antiallergic and antiemetic drugs
    - Antihistamines
    - Chlorpheniramine
    - Diphenhydramine
    - Diphenylpyraline

- Thonzylamine
  - Tripeleennamine
  - Excludes: phenothiazine-based tranquilizers (E939.1)
- E933.1 Antineoplastic and immunosuppressive drugs
  - Azathioprine
  - Busulfan
  - Chlorambucil
  - Cyclophosphamide
  - Cytarabine
  - Fluorouracil
  - Mechlorethamine hydrochloride
  - Mercaptopurine
  - Triethylenethiophosphoramide [thio-TEPA]
  - Excludes: antineoplastic antibiotics (E930.7)
- E933.2 Acidifying agents
- E933.3 Alkalizing agents
- E933.4 Enzymes, not elsewhere classified
  - Penicillinase
- E933.5 Vitamins, not elsewhere classified
  - Vitamin A
  - Vitamin D
  - Excludes: nicotinic acid (E942.2)
    - vitamin K (E934.3)
- E933.8 Other systemic agents, not elsewhere classified
  - Heavy metal antagonists
- E933.9 Unspecified systemic agent
- E934 Agents primarily affecting blood constituents
  - E934.0 Iron and its compounds
    - Ferric salts
    - Ferrous sulphate and other ferrous salts
  - E934.1 Liver preparations and other antianemic agents
    - Folic acid
  - E934.2 Anticoagulants
    - Coumarin
    - Heparin
    - Phenindione
    - Prothrombin synthesis inhibitor
    - Warfarin sodium
  - E934.3 Vitamin K [phytonadione]
  - E934.4 Fibrinolysis-affecting drugs
    - Aminocaproic acid
    - Streptodornase
    - Streptokinase
    - Urokinase
  - E934.5 Anticoagulant antagonists and other coagulants
    - Hexadimethrine bromide
    - Protamine sulfate
  - E934.6 Gamma globulin
  - E934.7 Natural blood and blood products
    - Blood plasma
    - Human fibrinogen
    - Packed red cells

- Whole blood
  - E934.8 Other agents affecting blood constituents
    - Macromolecular blood substitutes
  - E934.9 Unspecified agent affecting blood constituents
- E935 Analgesics, antipyretics, and antirheumatics
  - E935.0 Heroin
    - Diacetylmorphine
  - E935.1 Methadone
  - E935.2 Other opiates and related narcotics
    - Codeine [methylnorphine]
    - Morphine
    - Opium (alkaloids)
    - Meperidine [pethidine]
  - E935.3 Salicylates
    - Acetylsalicylic acid [aspirin]
    - Amino derivatives of salicylic acid
    - Salicylic acid salts
  - E935.4 Aromatic analgesics, not elsewhere classified
    - Acetanilid
    - Paracetamol [acetaminophen]
    - Phenacetin [acetophenetidin]
  - E935.5 Pyrazole derivatives
    - Aminophenazone [aminopyrine]
    - Phenylbutazone
  - E935.6 Antirheumatics [antiphlogistics]
    - Gold salts
    - Indomethacin
    - Excludes: salicylates (E935.3)
      - steroids (E932.0)
  - E935.7 Other non-narcotic analgesics
    - Pyrabital
  - E935.8 Other specified analgesics and antipyretics
    - Pentazocine
  - E935.9 Unspecified analgesic and antipyretic
- E936 Anticonvulsants and anti-Parkinsonism drugs
  - E936.0 Oxazolidine derivatives
    - Paramethadione
    - Trimethadione
  - E936.1 Hydantoin derivatives
    - Phenytoin
  - E936.2 Succinimides
    - Ethosuximide
    - Phensuximide
  - E936.3 Other and unspecified anticonvulsants
    - Beclamide
    - Primidone
  - E936.4 Anti-Parkinsonism drugs
    - Amantadine
    - Ethopropazine [profenamine]
    - Levodopa [L-dopa]
- E937 Sedatives and hypnotics
  - E937.0 Barbiturates

- Amobarbital [amylobarbitone]
  - Barbitol [barbitone]
  - Butabarbital [butabarbital]
  - Pentobarbital [pentobarbitone]
  - Phenobarbital [phenobarbitone]
  - Secobarbital [quinalbarbitone]
  - Excludes: thiobarbiturates (E938.3)
- E937.1 Chloral hydrate group
- E937.2 Paraldehyde
- E937.3 Bromine compounds
  - Bromide
  - Carbromal (derivatives)
- E937.4 Methaqualone compounds
- E937.5 Glutethimide group
- E937.6 Mixed sedatives, not elsewhere classified
- E937.8 Other sedatives and hypnotics
- E937.9 Unspecified
  - Sleeping:
    - drug NOS
    - pill NOS
    - tablet NOS
- E938 Other central nervous system depressants and anesthetics
  - E938.0 Central nervous system muscle-tone depressants
    - Chlorphenesin (carbamate)
    - Mephensin
    - Methocarbamol
  - E938.1 Halothane
  - E938.2 Other gaseous anesthetics
    - Ether
    - Halogenated hydrocarbon derivatives, except halothane
    - Nitrous oxide
  - E938.3 Intravenous anesthetics
    - Ketamine
    - Methohexital [methohexitone]
    - Thiobarbiturates, such as thiopental sodium
  - E938.4 Other and unspecified general anesthetics
  - E938.5 Surface and infiltration anesthetics
    - Cocaine
    - Lidocaine [lignocaine]
    - Procaine
    - Tetracaine
  - E938.6 Peripheral nerve- and plexus-blocking anesthetics
  - E938.7 Spinal anesthetics
  - E938.9 Other and unspecified local anesthetics
- E939 Psychotropic agents
  - E939.0 Antidepressants
    - Amitriptyline
    - Imipramine
    - Monoamine oxidase [MAO] inhibitors
  - E939.1 Phenothiazine-based tranquilizers
    - Chlorpromazine
    - Fluphenazine

- Phenothiazine
  - Prochlorperazine
  - Promazine
- E939.2 Butyrophenone-based tranquilizers
  - Haloperidol
  - Spiperone
  - Trifluoperidol
- E939.3 Other antipsychotics, neuroleptics, and major tranquilizers
- E939.4 Benzodiazepine-based tranquilizers
  - Chlordiazepoxide
  - Diazepam
  - Flurazepam
  - Lorazepam
  - Medazepam
  - Nitrazepam
- E939.5 Other tranquilizers
  - Hydroxyzine
  - Meprobamate
- E939.6 Psychodysleptics [hallucinogens]
  - Cannabis (derivatives)
  - Lysergide [LSD]
  - Marihuana (derivatives)
  - Mescaline
  - Psilocin
  - Psilocybin
- E939.7 Psychostimulants
  - Amphetamine
  - Caffeine
  - Excludes: central appetite depressants (E947.0)
- E939.8 Other psychotropic agents
- E939.9 Unspecified psychotropic agent
- E940 Central nervous system stimulants
  - E940.0 Analeptics
    - Lobeline
    - Nikethamide
  - E940.1 Opiate antagonists
    - Levallorphan
    - Nalorphine
    - Naloxone
  - E940.8 Other specified central nervous system stimulants
  - E940.9 Unspecified central nervous system stimulant
- E941 Drugs primarily affecting the autonomic nervous system
  - E941.0 Parasympathomimetics [cholinergics]
    - Acetylcholine
    - Anticholinesterase:
      - organophosphorus
      - reversible
    - Pilocarpine
  - E941.1 Parasympatholytics [anticholinergics and antimuscarinics] and spasmolytics
    - Atropine
    - Homatropine
    - Hyoscine [scopolamine]

- Quaternary ammonium derivatives
  - Excludes: papaverine (E942.5)
- E941.2 Sympathomimetics [adrenergics]
  - Epinephrine [adrenalin]
  - Levarterenol [noradrenalin]
- E941.3 Sympatholytics [antiadrenergics]
  - Phenoxybenzamine
  - Tolazoline hydrochloride
- E941.9 Unspecified drug primarily affecting the autonomic nervous system
- E942 Agents primarily affecting the cardiovascular system
  - E942.0 Cardiac rhythm regulators
    - Practolol
    - Procainamide
    - Propranolol
    - Quinidine
  - E942.1 Cardiotonic glycosides and drugs of similar action
    - Digitalis glycosides
    - Digoxin
    - Strophanthins
  - E942.2 Antilipemic and antiarteriosclerotic drugs
    - Cholestyramine
    - Clofibrate
    - Nicotinic acid derivatives
    - Sitosterols
    - Excludes: dextrothyroxine (E932.7)
  - E942.3 Ganglion-blocking agents
    - Pentamethonium bromide
  - E942.4 Coronary vasodilators
    - Dipyridamole
    - Nitrates [nitroglycerin]
    - Nitrites
    - Prenylamine
  - E942.5 Other vasodilators
    - Cyclandelate
    - Diazoxide
    - Hydralazine
    - Papaverine
  - E942.6 Other antihypertensive agents
    - Clonidine
    - Guanethidine
    - Rauwolfia alkaloids
    - Reserpine
  - E942.7 Antivaricose drugs, including sclerosing agents
    - Monoethanolamine
    - Zinc salts
  - E942.8 Capillary-active drugs
    - Adrenochrome derivatives
    - Bioflavonoids
    - Metaraminol
  - E942.9 Other and unspecified agents primarily affecting the cardiovascular system
- E943 Agents primarily affecting gastrointestinal system
  - E943.0 Antacids and antigastric secretion drugs



- Aluminum hydroxide
  - Magnesium trisilicate
- E943.1 Irritant cathartics
  - Bisacodyl
  - Castor oil
  - Phenolphthalein
- E943.2 Emollient cathartics
  - Sodium dioctyl sulfosuccinate
- E943.3 Other cathartics, including intestinal atonia drugs
  - Magnesium sulfate
- E943.4 Digestants
  - Pancreatin
  - Papain
  - Pepsin
- E943.5 Antidiarrheal drugs
  - Bismuth subcarbonate
  - Kaolin
  - Pectin
  - Excludes: anti-infectives (E930.0-E931.9)
- E943.6 Emetics
- E943.8 Other specified agents primarily affecting the gastrointestinal system
- E943.9 Unspecified agent primarily affecting the gastrointestinal system
- E944 Water, mineral, and uric acid metabolism drugs
  - E944.0 Mercurial diuretics
    - Chlormerodrin
    - Mercaptomerin
    - Mercurophylline
    - Mersalyl
  - E944.1 Purine derivative diuretics
    - Theobromine
    - Theophylline
    - Excludes: aminophylline [theophylline ethylenediamine] (E945.7)
  - E944.2 Carbonic acid anhydrase inhibitors
    - Acetazolamide
  - E944.3 Saluretics
    - Benzothiadiazides
    - Chlorothiazide group
  - E944.4 Other diuretics
    - Ethacrynic acid
    - Furosemide
  - E944.5 Electrolytic, caloric, and water-balance agents
  - E944.6 Other mineral salts, not elsewhere classified
  - E944.7 Uric acid metabolism drugs
    - Cinchophen and congeners
    - Colchicine
    - Phenoquin
    - Probenecid
- E945 Agents primarily acting on the smooth and skeletal muscles and respiratory system
  - E945.0 Oxytocic agents
    - Ergot alkaloids
    - Prostaglandins
  - E945.1 Smooth muscle relaxants

- Adiphenine
  - Metaproterenol [orciprenaline]
  - Excludes: papaverine (E942.5)
- E945.2 Skeletal muscle relaxants
  - Alcuronium chloride
  - Suxamethonium chloride
- E945.3 Other and unspecified drugs acting on muscles
- E945.4 Antitussives
  - Dextromethorphan
  - Pipazethate hydrochloride
- E945.5 Expectorants
  - Acetylcysteine
  - Cocillana
  - Guaifenesin [glyceryl guaiacolate]
  - Ipecacuanha
  - Terpin hydrate
- E945.6 Anti-common cold drugs
- E945.7 Antiasthmatics
  - Aminophylline [theophylline ethylenediamine]
- E945.8 Other and unspecified respiratory drugs
- E946 Agents primarily affecting skin and mucous membrane, ophthalmological, otorhinolaryngological, and dental drugs
  - E946.0 Local anti-infectives and anti-inflammatory drugs
  - E946.1 Antipruritics
  - E946.2 Local astringents and local detergents
  - E946.3 Emollients, demulcents, and protectants
  - E946.4 Keratolytics, keratoplastics, other hair treatment drugs and preparations
  - E946.5 Eye anti-infectives and other eye drugs
    - Idoxuridine
  - E946.6 Anti-infectives and other drugs and preparations for ear, nose, and throat
  - E946.7 Dental drugs topically applied
  - E946.8 Other agents primarily affecting skin and mucous membrane
    - Spermicides
  - E946.9 Unspecified agent primarily affecting skin and mucous membrane
- E947 Other and unspecified drugs and medicinal substances
  - E947.0 Dietetics
  - E947.1 Lipotropic drugs
  - E947.2 Antidotes and chelating agents, not elsewhere classified
  - E947.3 Alcohol deterrents
  - E947.4 Pharmaceutical excipients
  - E947.8 Other drugs and medicinal substances
    - Contrast media used for diagnostic x-ray procedures
    - Diagnostic agents and kits
  - E947.9 Unspecified drug or medicinal substance
- E948 Bacterial vaccines
  - E948.0 BCG vaccine
  - E948.1 Typhoid and paratyphoid
  - E948.2 Cholera
  - E948.3 Plague
  - E948.4 Tetanus
  - E948.5 Diphtheria
  - E948.6 Pertussis vaccine, including combinations with a pertussis component

- E948.8 Other and unspecified bacterial vaccines
  - E948.9 Mixed bacterial vaccines, except combinations with a pertussis component
- E949 Other vaccines and biological substances
  - Excludes: gamma globulin (E934.6)
  - E949.0 Smallpox vaccine
  - E949.1 Rabies vaccine
  - E949.2 Typhus vaccine
  - E949.3 Yellow fever vaccine
  - E949.4 Measles vaccine
  - E949.5 Poliomyelitis vaccine
  - E949.6 Other and unspecified viral and rickettsial vaccines
    - Mumps vaccine
  - E949.7 Mixed viral-rickettsial and bacterial vaccines, except combinations with a pertussis component
    - Excludes: combinations with a pertussis component (E948.6)
  - E949.9 Other and unspecified vaccines and biological substances